REFUTATION

OF THE

OBJECTIONS URGED BY DR COLLINS,

IN THE 31ST No. OF THE DUBLIN JOURNAL OF MEDICAL SCIENCE

(FOR MARCH 1837),

AGAINST

THE DOCTRINES OF DR HAMILTON,

FOR THE MANAGEMENT OF THE FIRST STAGE OF LABOUR,

AND FOR THE TREATMENT OF LABORIOUS LABOURS,

EXTRACTED FROM THE LONDON MEDICAL GAZETTE,

(NOS. 37, 43, AND 47.)

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EXTRACTED FROM THE LONDON MEDICAL GAZETTE FOR JUNE 10, 1837.

TO THE EDITOR

OF

THE LONDON MEDICAL GAZETTE.

Sir,—In the Number for March last of the Dublin Journal of Medical Science, there is an article by Dr Collins, lately Master of the Dublin Lying-in Hospital, objecting strongly to certain doctrines contained in my late work, entitled Practical Observations on various subjects relating to Midwifery; and with your permission I shall offer, through the medium of your valuable publication, some remarks tending to shew that Dr Collins has misunderstood or misrepresented, of course unintentionally, my opinions on some important prac-

tical subjects, and to establish the correctness of the practice which I have recommended.

Before proceeding to this task, however, I feel it necessary, as it has been alleged that some of my opinions are *dogmatical*,* to state very briefly the circumstances which have enabled me to suggest and to recommend certain innovations in the practice of midwifery. In doing this, I act only in self-defence, though I am aware that I subject myself to the imputation of egotism.

From the year 1787 till the year 1802, I had the superintendence of almost all the difficult cases of labour which occurred in the lower ranks in this city, and through my father, I had an opportunity of knowing the circumstances of almost all the cases of difficulty which happened during the same period among the higher ranks. It is well known also, that since

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* Dr Collins's Observations, page 40, line 11.

the establishment of the Edinburgh General Lying-in Hospital in 1793, I have had the chief charge of that Institution, and although it is upon a scale quite inconsistent with the extent of our population, yet 15,936 patients were delivered by the medical attendants of the hospital previous to October 1st, 1836. I am entitled to add, that since the year 1798, besides having enjoyed extensive private practice amongst the more opulent inhabitants of this city, I have had annually the charge of numerous patients from distant quarters (several from Ireland), whose cases were supposed to be difficult or dangerous.

These circumstances have given me opportunities of practice, which can probably never again fall to the lot of any individual. In submitting, however, to the Profession, in my two volumes of Practical Observations, the result of that experience, I have stated (in my Preface), that I am ready to explain any part of my doctrines which may appear obscure, and to vindicate any part which may be

called in question by practitioners of respectability.

Dr Collins's strictures in the Dublin Journal referred to, are entitled, "Observations on the Artificial Dilatation of the Mouth of the Womb during Labour, and upon Instrumental Delivery, &c., &c.;" and they are professedly brought forward to controvert some of my doctrines. In the present communication, I shall confine myself to what Dr Collins has called "the Artificial Dilatation" of the Womb, by which, I presume, he alludes to my directions for the management of the first stage of labour.

With much regret I have to declare my conviction, that Dr Collins has either misunderstood or misrepresented, unintentionally of course, my opinions on this subject. The very title of his paper bears evidence of the fact. By the expression, *Artificial Dilatation of the Os Uteri*, is plainly implied its dilatation by *mechanical means;* and, accordingly, in certain cases of hæmorrhagy in the latter months

of pregnancy, the whole Profession agree on the propriety of mechanically dilating that orifice. But in my directions for the management of the first stage of labour, the innovation which I have insisted upon, *is the securing or promoting that preliminary process to the advance of the infant, within twelve or fourteen hours from the actual commencement of labour, provided labour throes continue to recur regularly.*

The misunderstanding or misrepresentation of my opinion on this practical point by Dr Collins, cannot be rendered manifest without a reference to the reasons which originally induced me to adopt it.

For nearly fifteen years I ascertained (or supposed that I had ascertained) that in all cases of *tedious* labour, where there was no actual disproportion on the part of the mother (with the exception of monstrosity or hydrocephalus, or wrong position of the infant), the most frequent cause of the increased sufferings

of the patient, was the undue protraction of the first stage, and I became quite convinced that the effects of that protraction were the following. (Part I., p. 192.)

Firstly, That the powers of the uterus may be inadequate to expel the infant with safety to its life, or to the future health of the patient.

Secondly, That after the birth of the infant, the uterus may contract irregularly, so as to occasion the retention of the placenta.

Thirdly, That, after the expulsion of the placenta, the contractions of the uterus may be too feeble to prevent fatal hæmorrhagy. And,

Lastly, That, supposing the patient should escape all those untoward circumstances, febrile or inflammatory affections of a most dangerous nature may ensue from the previous protraction of pain, and the irregular distribution of the blood.

In other words, my conviction was, that although there be no injurious pressure upon the person of the infant, nor on that of the parent, the protraction of pain from uterine contractions, above a certain number of hours, must occasion more or less exhaustion, both of the sensorial and of the muscular powers, and must necessarily influence the subsequent process of delivery.

Having had the charge of patients of all ranks,* I was led to consider twelve or fourteen hours protraction of the first stage (regular pains continuing), as the average limit which it was prudent to adopt, for in a great proportion of the cases in the lower ranks, the natural powers complete this part of the labour within less than that time; and according to

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* For the first twenty years of my practice, a considerable proportion of those in the better ranks here were attended by female practitioners, and not unfrequently were allowed to have been two, or even three, days in continued labour before my assistance was required.

my observation, the constitutions of individuals in the better ranks could not bear, with impunity, muscular exertion, pain and sleeplessness, for above twelve or fourteen hours.

So anxious was I to guard against all misunderstanding upon this point, that I expressly stated two exceptions to the general rule.

Of these the first is in the following words :— " It sometimes happens, that after regular pains have commenced, the agitation of the patient, or the mismanagement of the attendants, occasion a suspension for some hours. If there be no injurious pressure upon the passages during that suspension, the patient's strength is recruited, and the duration of the first stage is to be reckoned from the recurrence of the pains."—Part I., p. 195. It is quite clear from these words, that in general, the exhaustion of the patient's strength is the consequence of the protraction of the first stage which is to be chiefly dreaded.

The second exception is of an opposite description. It relates to cases where the liquor amnii is discharged before the labour pains commence, and where, of course, the uterus is brought into close contact with the person of the infant. For the management of such cases I have given, (Part I., page 25,) the following directions :—

(1.) " Many respectable practitioners recommend, that where the liquor amnii is discharged without previous pains, the abdomen should be firmly compressed by means of a roller, in order to secure the complete discharge of the water, and to accelerate the accession of labour throes. But unless under particular circumstances, viz., where the patient's health had been previously in a precarious state, the author never has sanctioned such means."

(2.) " When the pains take place, if the dilatation prove tedious, that is, if the continuance of strong pains for six or eight hours do not advance the dilatation to such a degree, as to

give reason to expect its completion within a few pains, it becomes necessary to interfere, lest the patient's health should suffer."

(3.) "Generally speaking, venescetion to the extent of from sixteen to twenty-four ounces by weight, furnishes the readiest means of promoting the dilatation. But cases from time to time occur, where the patient cannot bear the subtraction of blood, and where it becomes necessary to administer an opiate enema. There are also cases where supporting the os uteri during a pain is indispensable."

It must be evident, that if the water which surrounds the infant be discharged before any dilatation of the os uteri, the continuance of uterine contractions beyond a certain time may, by pressure on the umbilical cord, destroy the infant, or may rupture the uterus, or may greatly exhaust the strength of the woman, for it is well known that uterine contractions are much more violent after than before the rupture of the membranes.

By some extraordinary misapprehension, Dr Collins has represented this exception as my general rule for the management of the first stage of labour, for he has culled out paragraph No. 2, totally suppressing paragraphs Nos. 1 and 3, and thus has completely perverted my meaning.

That my doctrine on the management of the first stage of labour might be fully understood, I have explained minutely, (Part I., page 211), the causes of the protraction of that stage, stating them to be,—*First*, Premature discharge of the liquor amnii. *Secondly*, Natural toughness of the os uteri. *Thirdly*, Contraction of the cervix uteri in consequence of an undeveloped band of fibres. *Fourthly*, Great relaxation of all the parts lining the pelvis; and, *lastly*, The interception of a portion of the cervix uteri, between the presenting part of the infant and the bones of the pelvis. I may venture, by the by, to remark, that some of those causes were not previously explained to the Profession.

As I have already alluded to the practice where the liquor amnii is prematurely discharged, it is only necessary to state briefly,—that where the cause is toughness of the os uteri, I have recommended for ordinary cases, copious venesection, and for debilitated individuals, opiate enemata, remarking that spontaneous vomiting often quickly relaxes the os uteri, but that I had not ventured to prescribe nauseating doses in such cases.—The means I have advised, where there is an undeveloped band of fibres of the cervix uteri, are venesection, opiate enemata, and afterwards pressure on the stricture during the pain.—And for counteracting the effects of relaxation of the parts lining the pelvis,—and of the interception of a portion of the cervix uteri between the infant and the bones of the pelvis, I have directed supporting the edges of the os uteri with two fingers.

In as far as I can judge, the arguments which Dr Collins has urged against my practice are, that it is not pursued by the eminent

practitioners in Dublin, London and Paris, and that the result of the cases in the great Lying-in Hospital of Dublin, shews that the protraction of labour is not so injurious as I had represented it to be.

The former of those arguments is a most extraordinary one. If such a mode of reasoning were tolerated, there could be no improvement in practice. Till the publication of my Practical Observations, the most eminent practitioners in Dublin, London and Paris, recommended confinement in the horizontal posture, and the use of pessaries in cases of prolapsus uteri. It may be asked, if any one has objected on such grounds to the innovation in practice in those cases, which I have so successfully pursued for many years? Has not the innovation been at once assented to, and cordially acted upon by every practitioner to whom it has been explained?

The probable reason why my practice in the management of the first stage of labour, has not been hitherto adopted by the eminent practi-

tioners in Dublin, London and Paris, is, that it has been unknown to them.—But Professor Burns of Glasgow, whose talents and experience place him upon a level at least with any of the eminent practitioners of Dublin, London or Paris, has zealously adopted and recommended the very treatment which I had been teaching since the year 1800.

Within these twenty years, a number of gentlemen who had been in practice in different parts of the world have attended my lectures, and without an exception, every one has assented to the importance of the rules I have suggested for the limitation of the duration of the first stage of labour, and many of them have candidly declared, that if they had been formerly acquainted with my opinion, they should have been spared much anxiety, and they could, on many occasions, have saved their patients much suffering.

Had the practice been fairly tried by the eminent practitioners of Dublin, London and

Paris, and had it been found by them to be either unnecessary or hurtful, Dr Collins might have been enabled to cite their authority against mine, but it is almost ludicrous to say, that because they have not had recourse to the practice, it must be erroneous.

Upon this point I cannot resist adding a conclusive argument. I have stated, (p. 194, Part I.) that since the year 1800, when I adopted and recommended the limiting the duration of the first stage of labour to twelve or fourteen hours, "no patient under my charge has been above twenty-four hours in labour, and excepting in cases of disproportion none so long;" but it consists with my own knowledge that many individuals in the better ranks in Dublin, London and Paris, have been allowed to be in labour for two, three and even four days and nights, and as several of those patients were afterwards under my care, I am quite certain that their sufferings in the capitals alluded to, had been owing chiefly, if not entirely, to the mismanagement of the first stage.

The second argument of Dr Collins is much more plausible, though I think that it is equally fallacious. It is founded upon the result of 16,414 labours which occurred in the Dublin Lying-in-Hospital, during the seven years of his incumbency.

Considering that the individuals who resort, in Dublin, and in France and other foreign countries, to lying-in-hospitals are, generally speaking, robust hard-working women, it appears to me, that the information to be derived from a record of their cases, is much more limited than Dr Collins has supposed. The proportion of cases where the infant is in the natural position—where the position is preternatural—where the after-birth is attached to the os uteri—where the umbilical cord is found coming down with the presenting part,—where there is a plurality of children,—and the relative proportion of the sexes of the infants may be fairly estimated by comparing the records of different hospitals. But the effects of the duration of labour,—the obstacles to the ad-

vancement of the infant,—the occurrence of convulsions—and of accidental hæmorrhagy, and of rupture of the uterus, or of the vagina, and other most untoward accidents, depend so much upon the previous health of the patient,—on the treatment adopted,—and on other incidental circumstances,—that no logical reasoner could place any dependence for accurate calculations upon such data. For example, in the Edinburgh General Lying-in Hospital, during a period of forty-three years, there have been only three cases of ruptured uterus; whereas in the Dublin Lying-in Hospital, during Dr Collins's seven years incumbency, there were thirty-four cases of that deplorable accident. This fact is stated in illustration of the proposition, and not for the purpose of imputing, in the smallest degree, blame to the medical attendants of that magnificent institution.

For these obvious reasons, I protest strongly against the inference which Dr Collins and Dr Murphy have deduced in regard to the effect of the protraction of labour in the Dub-

lin Lying-in Hospital. My conviction is, as already stated, that, generally speaking, the pregnant women who resort to the Dublin Lying-in Hospital, and to the Lying-in Hospital of Paris, are much more capable of enduring with impunity a protraction of labour than women in the grades above them, reckoning from the wives of respectable tradesmen up to ladies of the highest rank. Indeed I have no doubt that the comforts provided for them in those great establishments, enable them to bear, without injury, a degree of protraction of suffering, which would be most prejudicial if they had been confined to their own miserable dwellings, and left to their own scanty means of subsistence.

Even in the lower animals, the phenomena of parturition are varied, according to the previous condition of the animal. In the Highlands of Scotland, cows bring forth with little difficulty or danger. But it is very different in the dairies in the neighbourhood of great cities. Dr Bland received the following curious particulars from a person who had been many

years employed in the nurture and management of cows at Islington, near London, and who had usually more than three hundred under his charge :—

" Many cows, he said, part with their young in the space of a quarter of an hour, but their labour is more frequently of the duration of two hours. In tedious and difficult cases, which in London, where the animals are overfed, and made too fat, occur as often as once in six or eight labours, it is protracted from eight or ten hours to two days, or more. That these difficult cases happened not only when the calf came in a wrong position, but even when the presentation was natural."

" Cows are peevish and fretful as the period for calving approaches, refusing to be milked, or even not suffering any one to come near them. That they frequently suffer very severely during labour is evident, he said, from their countenance, which is suffused with tears, and from their groans, which may be heard at a great distance. In general, cows

that are fat have more difficult labours, and are more liable to disease after parturition than those that are lean."

If, therefore, the phenomena of parturition be influenced in the cow by the previous habits and feeding of the animal, even speculative reasoners would conclude, that the same must happen in the human subject. Accordingly, every man who practises midwifery must admit the fact. Dr Collins himself says, page 8, in allusion to the duration of labour, "Some will suffer more in thirty hours than others in ninety." I must, by the way, remark, that I never saw, in the course of forty-nine years' practice, any individual who had been allowed to be NINETY hours in labour.

Again, therefore, I repeat, that Dr Collins's inferences, from the apparent effects of the adurtion of labour in the Dublin Lying-in Hospital, do not in the smallest degree invalidate the innovation in the treatment of the first stage of labour, which the experience of, I may say, forty years, entitles me to recommend.

I shall conclude this communication by quoting from Dr Collins's Observations, (Dublin Medical Journal, page 58,) two consecutive paragraphs, which may perhaps surprise the reader as much as they have startled myself.

I have taken the liberty, in quoting these two consecutive paragraphs, to direct some of the words to be printed in italics, and others in small capitals.

"I have not entered into any detail of the measures recommended by Professor Hamilton *to effect the dilatation of the os uteri within a limited period*, as, DISBELIEVING in the UTILITY of the measures, it is unnecessary; for information on these points, the work itself may be consulted."

"In some instances, especially with first children, the mouth of the womb continues rigid and hot, with little tendency to yield under uterine action, accompanied not unfrequently with considerable irritation. In such, *bleeding to the extent of ten or twelve ounces*, and keep-

ing the patient under the influence of slightly nauseating doses of tartar emetic (to which a small quantity of *opium* should be added) will be found to promote relaxation, and *thus* be *productive* of the BEST EFFECTS. In others, where a fold of the os uteri continues to be forced down before the head, anteriorly between it and the pubes, although elsewhere obliterated, the descent of the head will be *much facilitated by applying two fingers*, so as to keep it stationary during the pain, and *thus permitting the head to clear this obstruction*. Neither of these cases are often met with, nor have they any tendency to illustrate the opinions noticed; I make the observation here, having had PRACTICAL EXPERIENCE of the ADVANTAGE of the TREATMENT."

From these expressions, it is evident that Dr Collins, now most reluctantly indeed, admits that it is sometimes necessary to interfere in the first stage of labour; that *venesection*, nauseating doses and *opiates*, by *promoting relaxation* of the os uteri, are *productive of the best effects*, and that where a fold of the os uteri is

forced down before the head, the descent of the head will be much facilitated by applying two fingers to the os uteri; and he adds, that these directions are founded upon *practical experience.* If these be not the very measures, with the exception of nauseating doses, which I have suggested for certain cases of protraction of the first stage of labour, and against which Dr Collins has so strongly objected, I do not understand the English language.

With an anxious wish to avoid saying any thing to call in question Dr Collins's experience of the utility of the practice detailed in his second paragraph, I beg leave to bring under his review, and that of the reader, the following most instructive and most melancholy case, recorded by himself, page 481 of his Practical Treatise on Midwifery :—

No. 1038. " This patient was admitted in labour of her first child. Uterine action was feeble, and continued so for seventy-two hours after she came in. As the fœtal heart had ceased to act for some time, and the pulse

became hurried, it was considered advisable to deliver her. The os uteri was not fully dilated, the head was high and rested on the pubes; it was lessened, and cautiously brought down with the crotchet.

"Severe abdominal inflammation set in shortly after delivery, which resisted the most prompt and active treatment, and proved fatal on the sixth day.

"On dissection, the intestines were found matted together, with an extensive deposition of lymph on their surface; there was also some seropurulent fluid in the cavity of the abdomen. The uterus was coated externally with greenish lymph, and on its internal surface there was a coating somewhat similar in appearance. There was a very small opening in the lip of the uterus, so as to admit the point of the finger, and a second similar one in the vagina, about half an inch below the mouth of the womb.

"The pelvis measured $3\frac{1}{2}$ inches from pubes to sacrum, and $4\frac{1}{2}$ transversely."

The only remark which I shall offer upon this melancholy case is, that I presume that it was after its occurrence that Dr Collins's *experience* led him to appreciate the utility of supporting the os uteri, where it is forced down before the head of the infant, which does not seem to have been attempted in the case in question, and which, in my humble opinion, would have much *facilitated the descent of the head*, and would have proved of such *advantage*, that probably the lives, both of the mother and of the infant might have been thereby saved.

In a future communication, I shall reply, with your permission, to Dr Collins's censures on my practice in Laborious Labours.

I have the honour to be,

Sir,

Your obt. humble Servant,

Jas. Hamilton.

Edinburgh,
23, St. Andrew Square,
May 25, 1837.

EXTRACTED FROM THE LONDON MEDICAL GAZETTE
FOR JULY 22, 1837.

TO THE EDITOR

OF

THE LONDON MEDICAL GAZETTE.

Sir,—Having in a former letter, in reference to Dr Collins's Observations on the artificial dilatation of the mouth of the womb during labour, and upon instrumental delivery, &c. &c., endeavoured to shew that the objections which that gentleman has urged against my doctrines on the management of the first stage of labour, are untenable, I proceed now to notice his strictures on my directions for the treatment of laborious labours.

As the subject at issue is, the utility of means calculated to lessen the sufferings, and to shorten the duration of childbearing, and to

secure the safety of the parent and of the infant, I trust that the discussion of this question will not be unacceptable to the numerous readers of your valuable publication.

If Dr Collins had stated accurately my directions for the treatment of laborious labours, and his objections to the same, I should certainly have left the intelligent part of the profession at full liberty to judge between us. But instead of pursuing this very obvious method, I regret to say, that he has, by some inexplicable misunderstanding, attributed to me doctrines which are directly at variance with all that I have ever taught, or have ever written.

Under such circumstances, my duty to the profession, for whose benefit my Practical Observations have been published, calls upon me, *firstly*, to give a summary of my directions for the treatment of laborious labours; and *secondly*, to point out the misinterpretations of those directions into which Dr Collins has been betrayed. In the course of the discussion upon

this latter point, I believe that I can prove that the cases recorded by Dr Collins himself, illustrate as strongly the utility of my practice in such labours, as if they had been fabricated for the express purpose.

Firstly, After defining laborious labours to be "all cases where, the head of the infant being forced foremost, the labour is protracted beyond twenty-four hours," I have particularly specified, that this *conventional* definition, founded upon the duration of labour, has been adopted as furnishing a salutary check to the importunities of the patient or attendants, and to the impatience of the practitioner, (Part II. page 42.) And while I have conceded, "that till the practice of limiting the duration of the first stage be universally adopted, this definition must be retained," I have at the same time expressed my conviction, "that supposing the first stage to be completed within twelve hours, and that labour pains continue to recur regularly, there can be no difficulty in ascertaining, within the remaining twelve

hours, whether the natural powers be adequate to the safe delivery of the woman."

Cases of laborious labour must end in one of three ways, viz., in the eventual expulsion of the infant by the natural powers, or in its being possible, where those powers fail, to extract the infant alive with safety to the parent, or in its being impracticable to bring forward a living infant through the natural passages. I have been at particular pains to point out the means by which those three different cases may be distinguished from each other, having distinctly stated, page 46, that for this purpose, the previous history,—the duration of labour—the situation of the infant's head—the apparent effect of the pains—the condition of the passages—and the state of the general system, must be severally taken into deliberate consideration.

Proceeding to describe the causes of laborious labours, I have enumerated the circumstances which protract labour where there is no

disproportion, in other words, which occasion the first two orders of laborious labours, viz., circumstances which diminish the uterine contractions, and circumstances which, although they increase the usual resistances, do not constitute actual disproportion, and I have endeavoured to prove that, generally speaking, all those cases are occasioned by mismanagement.

For the treatment of the first order of laborious labours, it is unnecessary to enter into any discussion, as Dr Collins has not particularly alluded to such cases.

As to that of the second order, my great object has been to impress upon the profession the necessity for the use of mechanical means for completing the delivery, *whenever there is decided evidence that the natural powers are inadequate to accomplish it with safety to the parent.* Thus I have laid down (Part II., page 103 and 105), the following propositions:—*Firstly*, That it is in the power of the practitioner to judge so opportunely whether the labour pains tend to ad-

vance the delivery, as to prevent the occurence of injury either to the mother or to the infant. *Secondly*, That if regular pains continue after the completion of the first stage, and the infant should become wedged in the passage, and be within reach of the forceps, the practitioner ought to interfere before there is a probability that the pressure may destroy the infant's life, and before any untoward symptom threaten the mother. *Thirdly*, That the forceps, if properly employed, can do no harm, while, by diminishing the bulk of the infant's head, it enables the practitioner to lessen as well as to shorten the sufferings of the poor woman. *Fourthly*, That in those protracted cases, to which I have been called after the labour had proceeded for a considerable time, my endeavour has always been to secure the safety of the woman; and when immediate delivery has been necessary, I have had recourse to the forceps without regard to the life of the infant (there being no actual disproportion), provided the previous protraction had produced no injurious effect upon the passages. And, *lastly*, That under

similar circumstances, viz., where immediate delivery was necessary, I have declined using the forceps, when, from the condition of the patient, the application of that instrument might aggravate the injury already done; as, for example, in cases where swelling and inflammation of the parts lining the pelvis had been the effect of the long continued pressure of the infant upon those parts.

With respect to the third order of laborious labours, after describing the several causes of obstruction to the progress of a living infant through the natural passages, I have endeavoured to explain the means of distinguishing those distressing cases from the more ordinary cases of protracted labour, and have advised young practitioners to examine with great care the dimensions of the pelvis. I have particularly warned them against two errors; *firstly*, mistaking the lengthening of the head of the infant, which is the effect of compression, for its actual advance (Part II., page 129); and *secondly*, forgetting that where the pelvis is very

shallow, the uterine contractions sometimes squeeze the head through the brim, even though it be obviously defective. I have added, that while in such patients "the labour pains continue regular, and no untoward symptom occurs, it is the duty of the practitioner to support the strength and spirits of the woman, and to give time, always keeping in view that he is to ascertain what nature can *do*, not what she can *suffer*." (Page 130). *Finally*, I have stated my conviction, that an intelligent and attentive practitioner can always decide whether there be any considerable disproportion, long before any untoward symptoms occur.

Such is a faithful abridgement of my observations on laborious labours, as explained, not "in a large share of two volumes," as alleged by Dr Collins, at least according to our method of reckoning in Scotland. The two volumes contain 745 pages, of these 148 relate to Laborious Labours, but in 15 of these the induction of premature labour in cases of defective pelvis is considered, a subject to which Dr Col-

lins has not adverted, and the importance of which he does not seems to have duly appreciated.

Certainly I did not anticipate that any practitioner in the present day, who declares that he had studied every page of those Observations with the utmost attention, could have asserted that the practice inculcated " is calculated to urge junior practitioners to a hasty, unnecessary, and consequently injurious interference," and could have declared that he felt himself called upon " to advise them against a line of practice which, after the most anxious consideration, with an ample field for observation, he is satisfied is fraught with much hazard to the patient." Yet such is the language with which Dr Collins prefaces his observations on my practice.

Secondly, Having deliberated with great care upon Dr Collins's objections to my practice in laborious labours, it appears to me that they relate to the assumptions, pages 103 and 105

(Practical Observations, Part II.), already referred to in pages 5 and 6 of this letter, and I shall now notice the assumptions and objections *seriatim*.

Before entering on this discussion, it is necessary to advert to an opinion strongly insisted upon by Dr Collins, that the safety and the utility of the practice in cases of child-bearing, are to be estimated by the general result as to the life or death of the patient, in a great institution such as the Dublin Lying-in Hospital, —*vide* Dublin Journal of Medical Science, No. 31, page 45. And yet, notwithstanding his strong language, he seems to have had some misgivings on the subject, for in his Practical Treatise, p. 86, after detailing the particulars of certain cases, he adds,—" The reader will be thus enabled to form his own conclusions, both as to the practice adopted in each case, and as to the general result."

It cannot be doubted that, for practical purposes, the means pursued in individual cases

can be alone interesting to junior practitioners, to whom Dr Collins professedly addresses his warnings against my practical precepts. Very few of them can aspire to the charge of a magnificent establishment, in which 16,414 women are delivered in the course of seven years. Their expected duty is attendance upon individuals, and the history of the cases which occurred in the Dublin Lying-in Hospital, is declared by Dr Collins himself to have been for their instruction. Accordingly, the practice which had been pursued in the cases of protracted labour detailed by Dr Collins, is that which alone relates to the present discussion. The records of those cases present a most graphic description of the sufferings consequent on the protraction of labour, and they afford a most valuable lesson to young practitioners. They shew incontestably the injurious effects of indecision and procrastination. The candour with which the details are given reflects the highest credit on Dr Collins.

My *first* assumption is, " that it is in the power

of the practitioner to judge so opportunely whether the labour pains tend to advance the delivery as to prevent the occurrence of injury either to the mother or to the infant."

This assumption is founded upon the previous directions, page 45, *et seq.*, for distinguishing the three different orders of laborious labour from each other. Those directions have been in a most singular, and to me, an inexplicable manner misinterpreted by Dr Collins.

He asserts, that " I instruct the junior practitioner to effect the delivery of his patient within twenty-four hours," adding the following words: —" It appears to me to cruelly encourage the destruction of the child, while in the great majority of cases, not even a shadow of necessity could exist for such a proceeding. Surely no experienced practitioner would be guided as to the safety or otherwise of his patient when in labour by the *number of hours*, but by the present symptoms and previous history. What

would be thought of the surgeon who directed all operations to be performed at stated periods without regard to symptoms or necessity."

To support this allegation, Dr Collins has quoted part of a paragraph, and has totally suppressed my very minute directions for distinguishing the cases belonging to the different orders of laborious labours.

So far from advising the junior practitioner "to be guided as to the safety or otherwise of his patient, when in labour, by the number of hours," thus asserted, and strongly commented upon by Dr Collins, I have in the plainest language remarked (Practical Observations, part II., pp. 45 and 46), that " when labour is protracted beyond twenty-four hours, it is the first duty to ascertain how long it may be safe to trust to the natural powers, or, in other words, to decide whether the case should be classed under the *first* or *second* or *third* order of laborious labour. For this purpose, the previous history of the patient,—the duration of labour—

the situation of the infant's head,—the apparent effect of the labour throes,—the condition of the passages, and the state of the general system of the woman must be severally taken into deliberate consideration."

The very same page (46) contains the following sentence:—" The *duration* of labour is the great mark by which it is usual for the patient and attendants to consider that artificial assistance is required. But this is a *most fallacious* test, for several reasons. As spurious pains not unfrequently precede real ones, even in a first pregnancy, and are common occurrences in women who have had a family, it may be supposed that the patient has been three or four days in labour, when perhaps she has not been as many hours; besides, some individuals suffer little from a considerable protraction of labour, as the records of the great Lying-in Hospitals upon the Continent and in Dublin amply testify. The *duration* of labour, therefore, is only to be considered as a *collateral circumstance*."

With respect to the assumption itself, Dr Collins's opinion is very different from mine. He says (Practical Observations, p. 17), " The difficulty in such cases is caused by a disproportion between the child's head and the pelvis, and except where this is very great, no individual can foretell whether the uterine action may be sufficient or not to expel the child. Therefore, the most certain proof we can have of such disproportion existing, is the head remaining stationary for a number of hours after the dilatation of the mouth of the womb, uterine action continuing strong. This is a more certain proof than any derived from the most accurate examination, for though in this way we may be able to inform ourselves, with tolerable correctness, as to the size of the pelvis, yet the size of the child's head, its degree of ossification, or the amount of compression it may undergo from uterine action, never can be correctly ascertained. Let it be carefully recollected, at the same time, that so long as the head advances ever so slowly—the patient's pulse continues good—the abdomen free from pain on

pressure--and no obstruction to the removal of the urine, interference should not be attempted unless the child be dead."

In alluding to this opinion of Dr Collins (Practical Observations, Part II., page 103), I have referred to the melancholy case of the Princess Charlotte, which I have brought forward as a striking illustration of the bad effects of the protraction of the first stage of labour, and I have stated that an account of the particulars of that case is recorded (as I believe, on the authority of Sir Richard Croft himself), in the 8th vol. of the London Medical Repository, Monthly Journal and Review.

That account bears, that " no consultation was at this period necessary," (viz., when Dr Sims arrived at Claremont), " *as the labour was evidently advancing, though slowly* ; but on hearing the statement of the situation of the Princess from Sir Richard Croft, Dr Sims concurred that every thing should be left to nature. The labour continned to be slowly pro-

gressive, the pains being such as to tend to forward the birth rather by moulding the head so as to admit of its easy passage, than by forcible expulsion."

Presuming that the particulars of this case were notorious, I have asserted, as quoted by Dr Collins, that the plausible rule "of delaying interference as long as the head of the infant advances ever so slowly," did, in that case, lead to the most fatal event. The context plainly implies, that my opinion is, that although no untoward symptoms may take place, the protraction of labour beyond a certain period must be injurious. Dr Collins asserts, p. 53 of the Dublin Medical Journal, No. 31, that I have given a most distorted view of his practice in the above quotation. This is indeed an extraordinary allegation. In page 153, Part II., I have quoted the full paragraph, beginning with the words "the difficulty" and ending with the words "unless the child be dead."

While my respect for Dr Collins leads me

to refrain from any captious objections to his precepts, my duty to the profession compels me to say, that the above directions for distinguishing laborious labours (Practical Treatise, p. 17) not only are calculated to mislead young practitioners, but also are proved by the cases which occurred in the Dublin Lying-in Hospital, which I have to notice by and by, " to be fraught with danger, both to the mother and to the infant."

They cannot fail to mislead the young practitioner, because they convey no other specification of the number of hours during which it may be safe to allow the labour pains to proceed (although there be no actual advance of the infant) than " the pulse continuing strong—the abdomen being free from pain on pressure, and there being no obstruction to the passage of the urine;" all which conditions or circumstances occurred in the case of the Princess Charlotte, and every body knows the event.

Dr Collins must be well aware, that it is the

bounden duty of a practitioner, not only to alleviate the sufferings of child-bearing, but also to prevent the occurrence of any circumstance which may endanger the present or future health of the patient. And yet it is evident, from the recorded cases of laborious labours which occurred during his mastership of the Dublin Lying-in Hospital, that he has not taken into consideration *the effect of protracted pain.* If he had looked into Mr Travers's interesting inquiry concerning that disturbed state of the vital functions, usually denominated constitutional irritation, he would have found (page 65), that "pain, when amounting to a certain degree of intensity and duration, is of itself *destructive. Difficult and protracted parturition is every now and then fatal from this cause.*" Several of the cases detailed by Dr Collins strongly confirm this most important practical remark.

In illustration of my objections to Dr Collins's rule, I referred (in the Second Part of my Practical Observations) to several of his recorded

cases, and I find that in doing so I had committed a gross error, for which an apology is due. This error, which was most unintentional, can be readily accounted for. I had made a memorandum of all the cases (in his work) in which it appeared to me that there had been an injurious delay in affording assistance, and I had afterwards selected the cases where there had been disproportion, but I had forgotten to mark off these latter. Unluckily, therefore, both lists were printed, the original one in page 100, and the selected one in page 162. Under the hurry of my professional duties, this and several other typographical errors were overlooked. That there may be no mistake, I now quote, in Dr Collins's own words, the following cases, in the conviction that they establish the validity of my first assumption, and that at the same time they shew the injurious effects of Dr Collins's rule.

"(A.) Page 158, No. 126. This woman was fifty-nine hours in labour; it was her first child; the pains were for a considerable time very

trifling, with long intervals; however, for the last twenty-four hours the uterus acted with tolerable regularity, the pains being at times strong, causing the head to press with much force against the ischia, where it remained stationary for the greater part of that time. Her pulse was very much increased in frequency, varying between 120 and 130; the external parts were œdematous. As the fœtal heart had ceased to act (having been distinctly audible in the right iliac region six hours before), the head was lessened and the crotchet applied. The placenta was expelled in 45 minutes, immediately after which, in consequence of hæmorrhage, the hand was introduced, and so it was arrested.

Violent inflammation and sloughing set in, resisting all treatment, and she died on the ninth day. For four days previous she had severe diarrhæa, a succession of motions coming on suddenly, with extreme pain,—she had also severe hiccough.

On examination after death, the vagina was found in a state of slough; the sides opposite the spines of the ischia were broken through with the slightest force, and were completely gangrenous. A circular opening, the size of a shilling, was found, forming a communication between this cavity and the rectum, the mucous surface of which, as also that of the colon, was softened, and had in the vicinity of the opening a gangrenous appearance. There was no symptom of inflammation in the peritoneum or uterus."

It is almost impossible to understand upon what principle, even of Dr Collins's own rule, this poor woman should have been allowed to suffer for the greater part of twenty-four hours, with the head pressing strongly against the ischia, and a pulse between 120 and 130, the external parts being œdematous. Could any other result than the death of the infant, and extensive sloughing and gangrene of the vagina have been expected?

"(B.) Page 207, No. 21. A. B., after having

been nearly forty-eight hours in labour, was suddenly attacked with convulsions, for which she was bled to the extent of twenty ounces, with relief, yet the fits returned twice afterwards with violence. The pains from the commencement had been tardy and inefficient; for the last twenty hours the head had made but little progress, still it advanced slightly and was pressing on the perinæum. It was so firmly impacted in the pelvis, and the pressure on the urethra was so great as to render the introduction of the smallest sized catheter into the bladder impracticable, which was at the same time distended with urine. Her pulse was feeble and hurried, 136, and her strength much exhausted. The head was immediately lessened, and the child brought away by the crotchet. The placenta was expelled immediately afterwards, when she fell into a sound sleep, out of which, in about three quarters of an hour, she awoke in a severe convulsive paroxysm. She was now given forty drops of tincture of opium which induced sleep, and she had no return of the attack.

Abdominal inflammation set in next day, which, notwithstanding most decided treatment, proved fatal on the third day. Her friends would not suffer the body to be examined."

That the head of the infant in this case should have been allowed to be for many hours so firmly impacted in the pelvis as to render the introduction of the catheter impracticable, with a pulse at 136, feeble and hurried, with the strength much exhausted, and that, too, after the patient had had a fit of convulsions requires no comment.

"(C.) Page 469, No. 303, was admitted, reported to have been three days in labour of her first child; the head was low and firmly fixed in the pelvis; the bladder greatly distended with urine, having been retained for thirty hours, pulse 140, tongue dry and white. The catheter was passed and three pints of urine removed. *As the abdomen was free from pain*, it was thought *advisable* to watch the effects of uterine action for some time. After waiting

five hours, during which the pains were pretty brisk at intervals, still the head made no advance, it was lessened and brought away with the crotchet. There was considerable exertion required to get down the shoulders. The abdomen was much distended with air, the consequence of putrefaction. She died on the fourth day after delivery."

As there was emphysematous putrefaction of the infant, it is evident that it had died before the woman reached the hospital, and yet although her pulse was 140, and her tongue white and dry, five hours were allowed to elapse before the poor creature's sufferings were relieved. Surely the stethoscope had not been employed on this occasion. The wonder is not that she died on the fourth day, but that she lived so long.

"(D.) Page 462, No. 49. The patient was forty-eight hours in labour of her first child. Having made no progress for the last twenty-four hours, the pulse becoming extremely quick

with great general debility, the head was lessened and delivery effected with the crotchet. Considerable difficulty was experienced in getting the head through the pelvis, in consequence of the hand having descended with it."

An attentive practitioner could have certainly discovered that the hand of the infant had descended with its head long before the lapse of twenty-four hours, and *long before the pulse of the patient had become extremely quick, with great general debility*, and certainly before the pressure had destroyed the infant.

"(E.) Page 464, No. 150, was forty-eight hours in labour in the hospital, the waters having been discharged a considerable time before admission. For several hours after she came in, the labour pains were neither severe nor frequent; however, the uterus afterwards acted well, and the head was forced so low as to cause the scalp nearly to protrude, when it remained stationary for twelve hours. The ear could be distinctly felt next the pubes, and

there was sufficient room towards the sacrum to admit the introduction of the forceps with ease, yet in the transverse direction of the outlet, there was evidently a diminution in size. It was thought, however, as the head was so low, by gentle assistance it might be got down ; no force, notwithstanding, consistent with safety, was found sufficient. As the patient's strength was rapidly sinking, and the abdomen had become tender on pressure, delivery was accomplished by lessening the head."

Many remarks might be made on this case, but I shall only observe, that any defect in the transverse diameter of the outlet is so readily and easily ascertained, that it seems to me most wonderful, that the poor woman's sufferings were allowed to proceed till the abdomen had become tender on pressure, and her strength had been rapidly sinking.

"(F.) Page 464, No. 173, was delivered with the crotchet after sixty-four hours labour, having made no progress for the last twenty-four ;

the child was evidently dead, and the pressure on the urethra was very severe. When brought away, it was found large and putrid. This woman died on the thirteenth day after delivery.

On dissection, a stricture of the intestine was found immediately above the sigmoid flexure of the colon. Several adhesions were observed between the liver and colon, apparently of old standing. In both cavities of the thorax extensive effusion had taken place, with a considerable deposition of lymph. The lungs were firmly adherent. The heart was extremely large and gorged with blood. Its parietes were thickened. The uterus was perfectly healthy and well contracted. The pelvis was considerably diminished in size, in consequence of a projection of the last lumbar vertebræ."

This case affords one of the strongest examples of the importance of ascertaining at an early period the dimensions of the pelvis. From inattention to this, the poor woman's life, as well as that of the infant, appears to me to have

been sacrificed after a protraction of suffering of sixty-four hours duration, and yet Dr Collins seems to attribute the death to the stricture of the intestine.

"(G.) Page 469, No. 425, was fifty-eight hours in labour, for the last twenty-four of which the head made no progress, although the pains were strong during the greater part of that time; as the ear was within reach of the finger, the forceps were introduced, but no force, consistent with safety, was of the least service. The head was then lessened, and delivery accomplished with the crotchet."

Although no disproportion is alleged to have existed in this case, the forceps was used unsuccessfully; and no wonder, for the infant's head had been allowed to remain wedged in the pelvis for twenty-four hours, and had consequently occasioned swelling of all the parts lining that cavity.

"(H.) Page 470, No. 526, was reported to

have been twenty-four hours in labour before admission. About twelve hours after she came in, it was discovered that the face was turned towards the pubes, and pressing so strongly on the urethra, the catheter could with difficulty be passed. The pains continued strong for fifteen hours from this time, yet the head did not advance. It was deemed advisable to lessen it. This patient had been in the hospital thirteen months previously, and was then delivered with the crotchet of her first child, after a labour of three days."

Two facts are related in this case which fully establish my allegation, that in the Dublin Lying-in Hospital the patients were not always carefully watched from the commencement of the second stage of labour, and that the appropriate assistance was frequently too long delayed. It is admitted that twelve hours elapsed after this patient had reached the hospital before it was discovered that the face of the infant was turned towards the pubes, although she had been previously twenty-four hours in labour; and it is farther

admitted, that fifteen hours were allowed to elapse before means were adopted to relieve the poor woman, notwithstanding strong pressure on the urethra, and strong pains too, and no advance of the head.

"(I.) Page 472, No. 639, was 48 hours in labour; it was her sixth child, all the former were born alive. The head, for twelve hours previous to delivery, made no progress, although the uterine action was at times so violent as to lead us to dread rupture. She complained of most acute pain in her right leg and thigh, and her pulse became hurried. The soft parts were well dilated, yet the ear could with difficulty be reached by the finger. The forceps were cautiously introduced, and considerable exertion was required to effect the delivery, the child being unusually large. It was still-born, though the heart's action was audible a short time previous.

Immediately on the birth of the child, most profuse hæmorrhage set in, requiring the instant introduction of the hand for the placenta, the

greater part of which was found in the vagina. On its removal the discharge ceased, and by careful binding with compress, and the use of cold applications, there was no return.

She was delivered on the 13th February ; on the 15th she complained of tenderness of the abdomen, which was removed by leeches and stuping. On the 16th she suffered from uneasiness in her stomach, and on the morning of the 17th, her pulse sank rapidly, and her extremities exhibited in the most marked manner the appearances of diffuse cellular inflammation, particularly the right fore arm. Her strength continued to fail, and she died the same evening, although stimulants and cordials were diligently employed.

On dissection, the abdominal viscera appeared healthy. There was a slight blush of redness on the anterior surface of the uterus. The muscles of the body were in a remarkable state of decomposition, particulary those of the right fore arm, where they appeared in a state of pu-

trefaction. The blood was fluid in all parts of the body."

It is impossible, according to my opinion, to imagine a case which could more strongly demonstrate the fatal consequences of Dr Collins's rule of practice now under discussion. It was the woman's sixth child, all her former children having been born alive. For twelve hours the uterine action was so violent as to threaten rupture, and yet it did not advance the labour. She had acute pain in her left leg and thigh, and her pulse became hurried; at last she was delivered by the forceps of a still-born infant. Can any practitioner believe that she could not have been delivered more easily (and safely too) several hours sooner? The infant might thus have been saved, and the poor woman's suffering shortened. That she had been in bad health previous to being admitted into the hospital cannot be doubted. But that should have been an additional reason for a more speedy delivery.

"(J.) Page 480, No. 1005, was admitted in

labour of her seventh child. She had been delivered artificially in her previous labours, and had but one child born alive. She had been ill a considerable time before she was brought to the hospital, and in nine hours afterwards, there being no progress made, the pulse 132, her strength much exhausted, and the child dead, she was delivered by the crotchet."

That the pelvis was defective in this case can scarcely be doubted, and in my opinion the woman ought to have had premature labour induced on her between the seventh and eighth month. But under the circumstances, it appears most extraordinary that she should have been allowed to continue nine hours in labour after the head had ceased to make any advance, and that with a pulse at 132, and her strength much exhausted, with evidence of the child being dead, before the appropriate means of delivery were had recourse to.

Having considered with great attention the preceding cases, my solemn conviction is, that

in every one of them an attentive practitioner might have judged whether the labour pains tended to advance the delivery before the continued pressure on the infant's person had destroyed its life, and before the protraction of unavailing suffering had brought that of the mother into jeopardy.

As I fear that I may have already exceeded the fair limits within which discussions of this nature should be confined in your valuable publication, I must defer to another opportunity, what I have still to remark on Dr Collins's objections to my doctrines on laborious labours.

I have the honour to be, respectfully,

Your obt. humble Servant,

JAS. HAMILTON.

EDINBURGH,
23, ST. ANDREW SQUARE,
July 4, 1837.

EXTRACTED FROM THE LONDON MEDICAL GAZETTE FOR
AUGUST 19, 1837.

TO THE EDITOR

OF

THE LONDON MEDICAL GAZETTE.

Sir,—With your permission, I now continue my remarks, dated July 4, on Dr Collins's strictures on my doctrines, relative to the treatment of laborious labours.

My second assumption, page 106, is, that "after the second stage has commenced, if regular pains continue, and the infant become wedged in the passage, the practitioner is imperatively called upon (supposing the infant within reach of the forceps), to interfere before there be a probability that the pressure of the uterus upon the navel string may prove fatal to the infant, and certainly before any untoward symptoms threaten the immediate or eventual safety of the mother."

On this, as it appears to me, most important practical precept, Dr Collins (page 43 of the Journal referred to) has thus expressed himself:—

" Again, let us examine the results in another point of view : thus, of 15,850 cases where the *length of labour* was accurately noted in the hospital, 15,084 were delivered within *twelve hours* from the commencement of labour ; 15,586 within *twenty-four ;* 15,671 within *thirty*, and 15,720 within *thirty-six hours*, leaving *only* 130 above that period. In no single instance in all these cases were any means whatever used to effect the dilatation of the mouth of the womb within any given period ;—nor was artificial assistance ever attempted until the *safety* of the patient absolutely required it."

This admission is certainly at complete variance with the paragraph quoted in my former letter from page 58 of the same Journal, in which the Doctor, from experience, has recommended assisting the dilatation of the os uteri

by bleeding, nauseating doses of tartar emetic, and opiates, &c.

But I readily admit that his own account of the cases of protracted labour which occurred under his superintendence in the Dublin Lying-In Hospital fully establishes the correctness of the assertion, "that no means whatever were used to effect the dilatation of the mouth of the womb within any given period, nor was artificial assistance ever attempted, until the safety of the patient absolutely required it." The attentive reader will see, in the account of the following cases, the injurious consequences of this rule.

"(K.) Page 475, No. 674. This patient was thirty-six hours in labour (first child), the head not having advanced for the last twelve, the parts well dilated, and the ear within reach; delivery was accomplished with the forceps. The child was still-born."

The infant, in this case, might have been saved if the forceps had been applied in proper time. Can any practitioner suppose that the

continued pressure of the uterus upon the person of the infant for so long a period was not calculated to destroy its life ?

It may be farther remarked, that in this case the stethoscope must either not have been applied, or must have given an erroneous result.

" (L.) Page 300, No. 32. This patient was sent many miles from the country to hospital, in severe labour, on the evening of the 27th of May. On admission her countenance was expressive of great anxiety, her pulse 120, the fœtal heart acting with rapidity, the head low and fixed in the pelvis. Delivery was effected the next morning at 9 o'clock, by lessening the head, as the child's heart had ceased to beat, and the patient had become extremely feeble, having vomited several times a dark brown fluid ; a rupture was suspected from the symptoms present.

" After delivery, her strength continued rapidly to fail, the abdomen became distended and tympanitic, and she died in fourteen hours."

"On dissection there was evidence of extensive peritoneal inflammation, the uterus was thrown very much to the right side, and at the left its muscular substance was found to have given way close to the vagina. The peritoneum was not injured, but was raised up and distended with blood underneath, resembling a bladder."

This case affords the most striking illustration of the effects of indecision and procrastination. The poor woman, who had been sent many miles from the country, was admitted into the hospital in severe labour on the evening, with a countenance expressive of great anxiety—her pulse at 120—the fœtal heart acting with rapidity, and the head low and fixed in the pelvis. Is it possible to imagine a case more imperatively demanding instant delivery? And as no disproportion is alleged, the forceps might have furnished the appropriate means?

And yet this poor woman was not delivered till nine o'clock next morning, *after the infant's heart had ceased to beat*, and *after evidence of the uterus having burst, had become manifest.*

My third assumption is, "that the forceps, if properly applied, can do no harm whatever to the mother, while, by diminishing the bulk of the infant, it enables the practitioner to lessen as well as to shorten her sufferings."

Dr Collins, p. 55 (Dublin Journal of Medical Science, No. 31), has inserted the following note:—"Dr Hamilton seems to forget here, that he only used the forceps thirty-three times in forty-eight years."

The misunderstanding through which this assertion has been made, arises from Dr Collins not having observed the qualification under which I have stated this fact, viz., "that where I had had charge of the patient from the beginning."

Indeed, I have always considered, that for the first twenty-years of my professional life, I had the very unpleasant duty of using the forceps much more frequently than any other British practitioner, because, during that period, I was applied to in almost all the cases of

difficulty and danger which occurred among the lower ranks of this large city.

I have now (June 10, 1837), been compelled to have recourse to that instrument thirty-five times, where I have had the entire charge of the patient. I present to Dr Collins and the profession, the particulars of that last case, for the purpose of illustrating the practical precept under discussion.

Before detailing this case, however, I must notice another misunderstanding of Dr Collins, which I have great pleasure in being able to explain. In page 41 of the Journal referred to, he has quoted my description of the consequences of the protraction of labour, Part II., p. 44, and has added the following words :—

" As to the symptoms above detailed, representing the real state of the patient in *an ordinary tedious* labour, or the cases recorded by me, in any way shewing such a result, I cannot but dissent. It is, indeed, somewhat like

the condition of a patient in *truly laborious and difficult* labours, where such disproportion exists between the child's head and the mother's pelvis, as in most instances to render the reduction of the former necessary. Would any practical physician draw a comparison between the state of the patient here, and in *an ordinary tedious labour ?*"

The error by which Dr Collins has been misled in the above remarks, has arisen from his having supposed that the terms *protracted* and *tedious* labour, are synonymous, whereas the word *protracted* is evidently applicable to all cases where the head of the infant being forced foremost, the delivery is not completed within twenty-four hours; but the word *tedious* has been, by Dr Burns and other respectable authors, applied to the first order of such labours. For the purpose of guarding against all ambiguity, I have avoided the expression of *tedious* labour.

From overlooking this obvious distinction,

Dr Collins has alleged, that the symptoms consequent upon the protraction of labour beyond twenty-four hours, which I have described, relate entirely to the first order, and not to cases in general of that deviation from the natural process. He might have seen his error if he had attended to the introductory sentence of the very paragraph which he has quoted. It is in the following words :—" When labour, with the head of the infant advancing, is protracted beyond twenty-four hours, the sufferings of the woman are *more or less distressing*."

The reader will now understand the mistake which has led Dr Collins to make the following comment, p. 41, line 26 :—" As to the symptoms above detailed, representing the real state of the patient *in an ordinary tedious labour*," &c. Now, I take the liberty to point out to Dr Collins, that in my Practical Observations, there is no such expression as *tedious labour*, and far less *an ordinary tedious* labour.

Having made this explanation, I shall now

detail the particulars of the thirty-fifth case, where I had recourse to the use of the forceps, having had charge of the patient from the beginning, and if Dr Collins require it, I can produce the testimony of two most respectable medical practitioners who were in the house of the patient during my attendance.

The patient was a delicate individual, not twenty-five years of age, and rather under than above the ordinary stature, who had suffered so much during the latter months of pregnancy, that she had been repeatedly confined to bed for days.

She supposed herself in labour about three o'clock on a Friday morning, and she continued harassed with irregular pains (which made no impression on the os uteri) till nine o'clock in the evening, when an opiate was administered, which secured a good night's rest. Between eight and nine o'clock on Saturday morning, true labour pains commenced, and proceeded with great regularity and frequency

till a quarter before two of the afternoon, when the membranes burst, and a very unusual quantity of liquor amnii was discharged. The head of the infant immediately descended into the pelvis, surrounded by the uterus, although the diameter of its aperture, previous to the discharge of the water, exceeded three inches.

Strong uterine contractions continued, and by supporting the anterior edge of the os uteri during the pain, the head cleared that part at a quarter past two o'clock, and completely filled the pelvis. Notwithstanding strong forcing pains recurring almost every two minutes, there was no progress whatever by half-past four. The forceps was then applied, and assistance was given during every pain. At six o'clock the infant was safely born. At first it shewed no signs of life, and it was found that it had discharged its meconium. It was quickly recovered, and its head, which was uninjured, measured in the long circumference, making the chin and the vertex the opposite points, seventeen and a-half inches, being two and a-half

inches more than the largest circumference described by Dr Collins.

Perhaps it may be proper to add, that this lady had a perfect recovery, and is now suckling the baby. Two most respectable medical practitioners saw the infant at birth, and witnessed the measurement of its head.

Let the practice adopted in the case of this patient be contrasted with that pursued by Dr Collins in the following case, and I think it will not be difficult to decide whether it is proper, in cases of protracted labour, "to interfere so opportunely as to prevent immediate or eventual danger to the mother or child," or whether "no artificial assistance ought ever to be attempted, until the safety of the patient absolutely require it."

"(M.) Page 465, No. 210. A woman of a most fretful and anxious disposition was admitted, February 17th, to be confined of her first child. On the night of the 18th, she complained of

pain and uneasiness, which she supposed was her labour, yet there was no dilatation of the os uteri ; the next day she still complained of some uneasiness, but slept the entire of that night. On the morning of the 20th, the pain and uneasiness returned in a more urgent form, and she expressed herself as suffering the most acute distress ; still there was no dilatation of the mouth of the womb,—it was quite thin and lax, and the head was low in the pelvis, the waters had been dribbling away from the time she was admitted. The pain continued during the night ; the following morning, at nine A.M., the os uteri was dilated to the size of half-a-crown, but the pains had not assumed a bearing down character. She had frequent pains during the day, and the succeeding night had intervals of ease, but slept little. On the 22d, the pains still continued, yet the head made no progress, and the mouth of the womb was very little more dilated. From this time till the following morning, the 23d, the uterus continued to act imperfectly, the labour notwithstanding made very considerable progress, the

os uteri being now tolerably well dilated, except towards the pubes, where it still covered the head of the child. The pelvis felt of sufficient size to allow the head to pass, and all that seemed wanting to effect this, was that the pains should become expulsive. The bowels, from the commencement, had been attended to with much care, and the abdomen was quite free from pain on pressure. The pulse after this became hurried, breathing difficult, accompanied with great anxiety and considerable debility. It was now thought advisable to administer an opiate to procure rest, in the hope that the uterus would act with more effect afterwards. Thirty-five drops of tincture of opium, with three drachms of castor oil, were given, followed by quiet rest till the evening. At eight, P.M., she was easy, had little or no labour pain, and took some gruel; an hour afterwards she was seized with the greatest difficulty of breathing, amounting almost to suffocation, accompanied by considerable debility, the pulse was scarcely to be felt, and the extremities cold. On examination, the head was found in

the same situation as in the morning, and had it not been that the mouth of the womb still remained over it, next the pubes, an attempt would have been made to deliver with the forceps. The head was immediately lessened, and almost every bone removed before it could be delivered, and even after it was brought down, much exertion was required to free the shoulders and body. The child was large, and the abdomen somewhat distended with air.

"The mother seemed at this time almost lifeless, having lost the power of swallowing. The hand was introduced into the uterus, which was quite relaxed, the placenta was gently removed, and the patient expired immediately."

"On dissection, the uterus was found healthy, but badly contracted, containing a small quantity of coagulated blood; the intestines were in the highest state of congestion, and there was a pint of fluid in the abdominal cavity, with portions of coagulable lymph in different parts, seemingly the effects of inflammation previous to

labour. On opening the chest, the lungs were observed to adhere so firmly as to require the knife in many places to separate them. Nothing was discovered to account for the suddenness of death."

I deem it unnecessary to make a single comment on this case, though perhaps it may be useful to the junior practitioners, to point out to their notice Mr Travers's valuable work, already referred to.

My fourth assumption, page 106, is, "that when called to a case of protracted labour which had been previously mismanaged, the state of the mother is to be principally, but not exclusively considered, and that if immediate delivery be required, the forceps or the crotchet should be had recourse to, without regard to the state of the infant." In other words, that if the forceps can be applied with safety to the parent, that instrument is to be used, but if the previous pressure upon the linings of the pelvis

have excited tenderness or swelling, then the crotchet is to be preferred.

When I studied, I saw several cases under the charge of my father's annual pupils, where delivery was effected by the forceps, and where the patients afterwards died in the same way as those recorded by Madame La Chapelle, viz., " Marche rapide de la Peritonite." Those cases led me to reflect upon the consequences of the infant being confined within the pelvis above a certain time.

This very obvious effect of the protraction of labour seems to have been overlooked by Dr Collins in the treatment of the following case :—

(N.) Page 482, No. 1053. " The uterine action in this case was feeble ; during the first thirty-six hours the head gradually descended ; it then became fixed between the ischia. The fœtal heart did not cease to beat for sixty-three hours from the commencement of labour, for

the last twenty-seven of which there was no progress made. The head was lessened as soon as the child's death was ascertained, and delivery accomplished with the crotchet; the head was much compressed. For twenty-four hours before delivery, the mother's pulse was 132; she had been delivered with instruments in Manchester five years since. She left the hospital well on the eighteenth day."

I have selected this case as strongly illustrating the assumption under consideration. By Dr Collins's account, the head was fixed between the ischia for twenty-seven hours, and consequently was within reach of the forceps. On the supposition that there was no disproportion, that instrument should have been applied before the patient's pulse was allowed to be 132, and if there had been actual disproportion (which could have been so easily ascertained), the crotchet should have been had recourse to, as soon as the pulse became so much accelerated.

The last assumption which I have made is

in the following words :—" That I cannot imagine a case of laborious labour which had been much protracted, where the knowledge of the state of the infant can be necessary to regulate the practice. If the circumstances permit the safe use of the forceps, that instrument should be employed (the necessity of interference being ascertained), and if, from the previous mismanagement or other circumstances, it might be unsafe to use that instrument, it ought not to be ventured upon, even although the infant be alive."

Dr Collins declares that this assumption is " startling," and alleges that it encourages young practitioners to " open the head of a living child."—(Dublin Medical Journal, No. 31, p. 51 and 52.) He also, in the following words, rebuts my allegation that the continued pressure of the head of the infant on the contents of the pelvis, may occasion sloughing of the vagina. He says,—

" Another misfortune, scarcely less fatal to the patient's welfare than the above, viz.,

sloughing of the urethra or of the recto-vaginal septum, is adduced by Dr Hamilton, as demanding interference in laborious labours. After enumerating several of the symptoms indicative of danger, he adds, delay under such circumstances, according to Dr Collins's own shewing, would be productive of sloughing of the contents of the pelvis, with all its fatal consequences, as he has so well described, page 18."

" This quotation," Dr Collins, page 49, continues, " is certainly given with some ingenuity to support Professor Hamilton's own views, which I do feel in several instances he has apparently done in opposition to my sentiments; my meaning, perhaps, being obscure. The passage referred to is taken from my urgent recommendation of the vital utility of the stethoscope in enabling us to ascertain the life or death of the child in laborious labour, which is, in my opinion, one of the greatest improvements that has been made in the practice of midwifery. Heretofore we were in a great measure ignorant of the time at which death took place,

and the practitioner, imagining the child alive from want of satisfactory evidence of its death, delayed interfering until his patient was in the greatest possible danger, whereas had he been assured the child was dead, he would have delivered her before life became actually hazarded, and thus prevented her not only enduring for hours, but even days in some instances, the most torturing pain, the result of which continued suffering was not unfrequently death," &c.

The reader will probably not be prepared for the proofs which I now bring forward to shew, not only that sloughing of the vagina *did follow the protraction of labour* in some cases in the Dublin Lying-in-Hospital, but also that Dr Collins had not always, during his incumbency as master of that noble institution, been regulated by this "one of the greatest improvements in the practice of midwifery." From his own recorded cases, it appears that he had allowed several poor women to "endure for hours the most torturing pain, the re-

sult of which was not unfrequently death," *after he had ascertained by the stethoscope that the fœtal heart had ceased to beat.*

(O.) Page 471, No. 555. " Was sixty hours in labour of her first child. The pelvis was defective, and there had been no advance for the last twelve hours ; the child's death having been ascertained by the stethoscope *some hours previous*, the head was lessened, and delivery thus completed."

(P.) Page 471, No. 584. " Was thirty-six hours in labour of her first child, and as its death had been ascertained by the stethoscope *some hours before*, delivery was accomplished by lessening the head."

(Q.) Page 472, No. 626. " The labour having made no progress for eighteen hours, the head being firmly fixed in the pelvis, and the heart's action having *some time ceased*, the perforator was used, and delivery completed by the crotchet. It was a first child ; the labour lasted forty-three hours."

(R.) Page 473, No. 665. "Was thirty-five hours in labour of her first child, for the last twenty-four of which, the head had not made the least progress. Her strength being exhausted, and the child some hours dead, as ascertained by the stethoscope, delivery was effected by lessening the head.

"She continued to recover favourably till the fourth day after delivery, when she was suddenly attacked with most acute pain in the abdomen, which resisted the most active treatment, and she died in forty-eight hours."

"On dissection a large quantity of deep straw-coloured fluid was found in the abdominal cavity, and all the viscera were extremely vascular. The uterus was soft, but in other respects healthy. The vagina was in a *sloughing* state."

(S.) Page 474, No. 667. "The labour lasted thirty hours, the head was firmly fixed in the pelvis, and had made no progress for twelve

hours. As the heart's action had *some time ceased*, and the mother's pulse was one hundred and forty, the head was lessened. Great exertion was necessary to effect delivery, in consequence of the head being much ossified."

(T.) Page 476, No. 740. " Was brought to Hospital, reported to have been a considerable time in labour ; the pains continued for thirty hours, with little intermission ; the labour made but little progress, and the heart having ceased to act *for some time*, the head was lessened, and delivery completed by the crochet."

(U.) Page 477, No. 817. " Was fifty-six hours in labour of her first child, for the last twenty-four of which the head made no progress. The waters were discharged early, the pains were very ineffectual, and the soft parts continued in such a state as to prohibit the use of the forceps. As the child had been *now dead some time*, as ascertained by the stethoscope, delivery was accomplished by lessening the head.

"She died on the eighth day after delivery, from abdominal inflammation. On dissection, a considerable quantity of fluid of a yellowish colour was found in the cavity of the abdomen, the omentum was firmly adherent to the intestines, which were very vascular; there was also an extensive deposition of lymph. The substance of the uterus was very soft, and the ovaries much injured from the effects of inflammation."

(V.) Page 478, No. 820. "Was 48 hours in labour (first child), for the last 36 of which there was little progress made; and the child having been *some hours dead*, as indicated by the stethoscope, she was delivered by the crotchet."

(W.) Page 480, No. 976. "The labour lasted in this case forty-eight hours (first child), and although uterine action was strong for the last sixteen hours, there was not any progress made. As the fœtal heart *had ceased to act for some time*, the brain was evacuated, in

which state the head was left for six hours, and then brought down with the crotchet."

(X.) Page 480, No 1032. "Was admitted in labour of her eleventh child; uterine action very frequent and strong; the os uteri dilated to the size of a crown, and the fundus very much inclined to the right side. In twenty-four hours after admission (the head not having made any progress for the last eight), the fœtal heart *having ceased to act for some time*, it was thought advisable to lessen the head, and deliver with the crotchet.

"This was the fourth time she had been delivered artificially. Fifteen months since, she was delivered in this hospital with the crotchet."

(Y.) Page 482, No. 1041. "Was reported to have been 48 hours in labour when admitted (first child). The waters were discharged, the uterine action strong, and the head had passed through the upper strait of the pelvis. The

fœtal heart's action was audible in the right iliac region. Twenty-four hours after she came in, the heart having *ceased for some time to pulsate*, and the head not having made any progress, it was lessened; and even after this was effected to as great an extent as practicable, it required two hours diligent exertion to complete the delivery with the crotchet, in consequence of the pelvis, particularly at its inferior outlet, being defective in size."

(Z.) Page 483, No. 1091. "Was admitted, August 23d, in labour of her first child, and was not delivered until the 25th, being a period of fifty-six hours. Uterine action from the commencement until within six hours of the expulsion of the child, was *extremely feeble*, with long intervals. The head remained high in the pelvis, and although the ear could not be reached, it was evident the head had sufficient room to pass; to effect which, uterine action was alone wanting. As soon as the pains began to be brisk, the labour proceeded without difficulty. The fœtal heart was

quite audible *until eight hours* previous to the birth.

" In three hours after the hand was passed to remove the placenta ; it was found separated, and without the slightest effort the uterus contracted and expelled both. The perinæum had suffered considerably in the passage of the head.

" This patient never seemed to rally after delivery ; the pulse continued quick ; there was considerable tenderness on pressure over the uterus, with a foul discharge from the vagina. She was treated with small quantities of calomel until the mouth became affected, which produced debility, relieved by mild aperients. She was put on nutritious diet when the abdominal distress had subsided, which occurred when the mercury affected the system. On the seventh and eighth days she had distinct rigors, followed by perspirations, after which her strength became greatly reduced. The vaginal discharges continued foul, notwithstanding the most rigid attention

to cleanliness and the use of stimulating injections. She gradually sunk, and died on the eleventh day, having for two days previous suffered from frequent hiccough.

"On dissection, the only morbid appearances found, were in the bladder and vagina. In the bladder the mucous surface was covered with yellow lymph, and it contained a quantity of muco-purulent fluid. In the vagina opposite the right ischium, a portion appeared to have been destroyed by *slough*, but its texture did not in other parts seem materially injured, although of a darker colour than natural.

"This was a very singular case, as there was nothing apparently in the labour in any way calculated to induce such an unfavourable termination. She was a feeble emaciated woman, and seemed to have suffered from hardship."

The best comment which can be made on the above cases is in the following words of Dr

Collins himself:—" I could not picture to myself a greater act of cruelty, nor a more glaring error in practice, than permitting a female to suffer the torture of a laborious labour, hour after hour, where the child is dead, and the symptoms urgent, until it be at length expelled in a putrid state with the probability of entailing upon her for life the miseries before noticed. It is here the real value of the stethoscope can in my opinion be fully appreciated. There is no mode of diagnosis more truly useful, and I feel convinced all who accustom themselves to its application will eventually agree with me in this opinion."

Besides the extraordinary fact thus proved, that Dr Collins in many cases did not avail himself of " the vital utility of the stethoscope," in relieving the sufferings of patients in whom labour was much protracted, it appears that his rule was to delay interfering in cases of disproportion, till, by means of the instrument in question, he was certain that " the fœtal heart had ceased to beat." In one case (No. 1053, p. 482)

SIXTY-THREE hours elapsed from the commencement of labour before that event took place.

Against this practice I must enter my solemn protest. Admitting that there is a mechanical impediment to the birth of a living child, I hold that the practitioner, after having ascertained the fact, is bound to finish the delivery before the parent's life or health is brought into danger.

Having thus shewn that Dr Collins's recorded cases prove most unequivocally the injurious effects of the protraction of labour beyond a a certain time, I think it only due to his candour to state, that he himself has, from experience, become convinced of at least one of the bad consequences of such protraction. He says (Practical Treatise, page 305) "I am fully satisfied that the patients in greatest danger of rupture" (of the uterus), "are those who have previously suffered from difficult and protracted labours." In the course of his future professional life, which I sincerely hope may be pros-

perous and lengthened, I have no doubt that he will be convinced, that the long continued pressure of the infant upon the abdominal and pelvic viscera is apt to lay the foundation for organic diseases of a very serious nature, which must inevitably manifest themselves at some future period of the patient's life.

In page 69, Dr Collins expresses a wish that there had been a brief report of the cases which have occurred in the Edinburgh General Lying-in-Hospital, embodied in my Practical Observations. Having already in my first letter, Medical Gazette, No. 37, for 1837, p. 389, stated my conviction, that the records of lying-in-hospitals afford much more limited information on practical subjects than Dr Collins has been induced to suppose, I feel the less regret in stating, that it is not in my power to comply with Dr Collins's wish.

When the Edinburgh General Lying-in-Hospital was instituted, I drew up a printed schedule for the registration of the cases, and

while I was assistant-physician (viz., for seven years), I entered the record of every case with my own hand.

Unfortunately the schedules were in an octavo form, and therefore when bound up, the several volumes were very easily borrowed, and, consequently, till January 4th, 1823, when the directors, at my suggestion, ordered that the details of the cases should in future be inserted in ponderous ledgers, many of the early records were found to have been lost, perhaps it should be said to have been abstracted. That this fact was made publicly known to the profession in the year 1823, is perhaps unknown to Dr Collins, and therefore I subjoin as a note, a quotation from a publication of Mr Moir, surgeon to the hospital, in reference to certain treatises on puerperal fever, published at Edinburgh in 1822.*

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* "When he (meaning Dr Hamilton) was assistant physician, and for many years afterwards, a daily report of every

From the prejudices respecting lying-in-hospitals, which have hitherto prevailed in Scotland, the funds for the support of the Edinburgh General Lying-in-Hospital have been hitherto so inconsiderable, that the medical attendants have acted gratuitously, and of course there could be no provision for the residence of a medical officer in the hospital. But by a happy coincidence, the assistant physician and sur-

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patient, whether convalescent or indisposed, had been regularly entered in a book kept for the purpose. Some of those records have been carried off, others remain, as, for example, those of the women affected with puerperal fever in the year 1815, but so far from this being an unprecedented occurrence, as the liberal ——— has so pompously held forth, he might have learned, if he had taken the trouble to have inquired at his friend Dr M'Donald, of the Royal Infirmary, that even in that great and excellent institution, where the establishment is on a most extended scale, there being resident medical officers, a regular clerk, accountant, &c., it has occasionally happened that the records of the cases of the patients have been abstracted." It is added, p. 18 of the same postscript, that "it has been reported that even some of the records of the Police Court (of Edinburgh) have been stolen."

geon, Dr John and Mr Moir, for whose intelligence and for whose zealous attention to the patients I cannot offer too high a tribute of praise, have been for several years past resident within a few hundred yards of the buildings and area appropriated to that institution.

It will no doubt surprise Dr Collins and the gentlemen connected with the great establishment in Dublin, when I state, that by a report presented to the managers of the Edinburgh General Lying-in Hospital, and circulated under the authority of the Right Honourable the Lord Provost of this city, dated 21st January 1837, it appears that 15,936 women had been delivered previous to 1st October 1836, and that the whole expenditure (not the annual) including the purchase of the buildings and area, furnishing the same, &c., amounted to the very small sum of £10,214. 13. 8.

A regular account of the cases which occurred in the Edinburgh General Lying-in

Hospital, from the 1st of January 1823 to December 31, 1836, and of the out-patients of the same institution, from September 30, 1825, to December 31, 1836, has been kept, and from that record the following extract has been made :—

Two thousand eight hundred and eighty-nine women were delivered in the hospital, and 4328 out-patients were attended, making an aggregate of 7217 cases. The crotchet was had recourse to in 15 cases, and the forceps in 66.

On comparing this result with that of the cases recorded by Dr Collins, the difference of practice must appear very remarkable. In the Dublin Lying-in Hospital, the crotchet cases bear the proportion of 1 in 141, while in the Edinburgh General Lying-in Hospital, the proportion was 1 to 481. Of the forcep cases, including those cases where the Lever was used, the proportion in the Dublin Lying-in Hospital was 1 in 608, while in the Edinburgh

General Lying-in Hospital, the proportion was 1 in 109.

If the general result of the practice were alone to be taken into account, this view would certainly not warrant Dr Collins's accusation of " my cruelly encouraging the destruction of the child," and of my " urging junior practitioners to a hasty, unnecessary and injurious interference." But I have already stated, that minute information on practical points is not to be derived from the *general result* in hospitals; and nothing can better illustrate this than the fact, that in 2889 patients delivered in the Edinburgh Hospital, there were eight crotchet cases; but in 4328 out-patients, there were only seven of such unfortunate cases.

The explanation is obvious,—deformed women are sent from various distant quarters into the hospital, in consequence of its being evident from their shape that their labour may probably be difficult. On the other hand, the out-patients afford a fair specimen of the ordi-

nary practice in the lower ranks. Crotchet cases accordingly occurred in the patients delivered in the hospital once in 361, and the same cases were met with in the out-patients only once in 618. From various communications from old pupils, who have been many years in practice, on whose veracity and intelligence I can rely, I am induced to believe, that the latter proportion is that which may be expected in general practice.

In further illustration of the same argument, I may add, that there were in the Hospital 38 forceps cases, being 1 in 76; while, among the out-patients there were only 28 forceps cases, or 1 in 154 and a fraction.

With these observations, I conclude my reply to Dr Collins' strictures, and I confidently appeal to the intelligent part of the profession, whether the practical precepts, for the treatment of laborious labours, to which that gentleman has so strongly objected, "be fraught with much hazard to the patient," and "be

likely to be followed by serious results both to the mother and child."

I have the honour to be,

SIR,

Yours respectfully,

JAS. HAMILTON.

EDINBURGH,
23, ST ANDREW SQUARE,
July 29, 1837.